EPA's Review of the Wisconsin Department of Natural Resources
Request for Approval of a Variance from Water Quality Standards
Wisconsin Public Service Corporation's Pulliam Power Plant, Brown County, Wisconsin
WPDES Permit No. WI-0000965-09-0
Under Section 303(c) of the Clean Water Act
WQSTS # WI2013-464

Date:

I. Summary

A. Date Received by EPA: July 12, 2013

B. Submittal History:

On June 14, 2013, the U.S. Environmental Protection Agency received from the Wisconsin Department of Natural Resources (WDNR) a request for approval of a water quality standard variance for discharge by the Wisconsin Public Service Corporation's Pulliam Power Plant (Pulliam), WI-0000965-09-0, located in Brown County, Wisconsin.

On June 27, 2013, EPA notified WDNR that an erroneous public notice date of February 20, 2012 was included in the letter from Kenneth G. Johnson, Administrator of WDNR's Water Division, to Tinka Hyde, Director of EPA's Water Division requesting review of the proposed variance.

Also on June 27, 2013, WDNR provided the following supporting documents to EPA via e-mail:

(1) An outline of the updates to the permittee's pollutant minimization plan (PMP) to be implemented by the permittee under the new permit, dated June 26, 2013;
(2) Copies of public comments received on the permit and mercury variance, including:
   a. comments from Linda Holst, Chief of EPA's Region 5 Water Quality Branch, to Susan Sylvester, Director, WDNR's Water Quality Bureau, highlighting information needed to review the proposed mercury variance for Pulliam, dated March 22, 2013;
   b. comments from Patrick Kuefler, of EPA's Region 5 NPDES Programs Branch, to Nile Ostenso, WDNR Water Resources Engineer, dated April 25, 2013 (these comments do not address the proposed mercury variance);
   c. comments from James N. Saul, of McGillivray, Westerberg & Bender, LLC, on behalf of the Sierra Club and attachments (Exhibits A, B, and C), to Nile Ostenso, dated March 22, 2013 (these comments do not address the proposed mercury variance), and;
   d. comments from Leonard Rentmeester, General Manager of the Pulliam Plant and attachment (Burns & McDonnell compliance evaluation of the thermal discharge from the Pulliam facility), to Nile Ostenso, dated March 20, 2013 (these comments do not address the proposed mercury variance).

(3) an e-mail from Mark W. Metcalf, an environmental consultant with Integrys Business Support, LLC, to Nile Ostenso, providing responses to comments and questions included in EPA's March 22, 2013 comment letter to WDNR, dated April 12, 2013;
(4) the draft final permit for the Wisconsin Public Service Corp. Pulliam – WPDES Permit No. WI-0000965-09-0;
(5) the permit fact sheet, which includes:
    a. P99 calculations for mercury, dated May 1, 2012 (p. 67);
    b. justification for granting the proposed mercury variance, discussion of the environmental effects of granting the mercury variance, and discussion of the PMP, updated June 26, 2013 (pp. 76-8);
    c. a facility-specific standard variance data sheet, dated June 18, 2013 (pp. 79-85);
    d. a map indicating the location of the discharge and surrounding discharges (p. 86);
    e. public notice document indicating WDNR's intent to reissue Pulliam's permit with a variance from mercury water quality criteria, dated February 20, 2013, (pp. 87-8) and;
    f. information concerning the development and implementation of Pulliam's PMP (pp.109-12).
(6) tentative notice of final determination with a brief description of the permitted facility, comments received during the public comment period, and WDNR responses, updated June 27, 2013;
(7) a summary of permit and fact sheet changes made as a result of public comments, dated June 27, 2013;
(8) correspondence between WDNR and the permittee, including the permittee's initial PMP, WDNR's approval of the PMP, annual reports on PMP implementation, responses to questions posed by EPA in its March 22, 2013 comment letter to WDNR, and a May 23, 2013 draft update to the permittee's previously-approved PMP, and;
(9) Pulliam's annual PMP status report, outlining actions taken in 2009 and associated findings, dated January 29, 2010.

On July 12, 2013, WDNR provided the following documents for EPA consideration:

(1) revised versions of the notice of final determination;
(2) a revised version of the permit fact sheet, and;
(3) a revised version of the proposed permit.

C. Documents considered by EPA in this variance review:

- Mercury variance application, submitted to WDNR by Howard R. Giesler, Pulliam's Vice President of Energy Supply Operations, dated December 17, 2010;
- Revised transmittal letter from Kenneth Johnson to Tinka Hyde, dated June 28, 2013, with background information attached;
- Certification statement of approval of a variance to water quality standards, J.P. Pulliam Generating Station, WPDES permit No. WI-0000965-09-0, from Timothy A. Andryk, WDNR Chief Legal Counsel, to Tinka Hyde, dated June 4, 2013;
- Revised WPDES permit for the Wisconsin Public Service Corp. Pulliam – WPDES permit number WI – 0000965-09-0, submitted via e-mail on July 12, 2013;

- Permit fact sheet for Wisconsin Public Service Corp. Pulliam, permit number WI-0000965-09-0, dated June 27, 2013;
- Revised permit fact sheet for Wisconsin Public Service Corp. Pulliam, permit number WI-0000965-09-0, dated July 12, 2013;
- PDF document containing:
    - Pulliam mercury PMP, dated March 30, 2009;
    - WDNR approval letter re: Pulliam's proposed PMP, dated June 22, 2009;
    - Pulliam annual PMP report, dated January 27, 2011;
    - Pulliam annual PMP report, dated January 31, 2012;
    - transmittal e-mail from Steven J. Biebel, of Integrys Business Support, LLC, to Nile Ostenso, dated January 30, 2013, with Pulliam's 2012 annual PMP report attached;
    - Pulliam annual PMP report, dated January 30, 2013;
    - transmittal e-mail from Mark Metcalf to Nile Ostenso, dated March 20, 2013, with Pulliam's 2010 annual PMP report attached;
    - transmittal e-mail from Mark Metcalf to Nile Ostenso, dated April 12, 2013, with responses to EPA's March 22, 2013 comment letter to WDNR, and;
    - transmittal e-mail from Mark Metcalf to Nile Ostenso, dated May 23, 2013, with Pulliam's draft mercury PMP attached.
- Permit fact sheet for Wisconsin Public Service Corp. Pulliam, permit number WI-0000965-09-0, dated June 27, 2013;
- Comments highlighting information needed to review the proposed mercury variance for Pulliam, provided by Linda Holst to Susan Sylvester, dated March 22, 2013;
- E-mail from Robie Anson, of EPA's Water Quality Branch, to Nile Ostenso, with clarifying comments on EPA's expectations of Pulliam's revised PMP attached, dated April 30, 2013;
- E-mail from Nile Ostenso to Robie Anson, with a first draft of Pulliam's proposed PMP outline attached, dated May 23, 2013;
- E-mail from Robie Anson to Nile Ostenso including comments on Pulliam's May 23 draft of the PMP outline, dated May 29, 2013;
- E-mail from Nile Ostenso to Robie Anson with responses to EPA's May 29 comments and a revised PMP outline attached, dated June 5, 2013;
- E-mail from Robie Anson to Nile Ostenso, including questions about, and suggestions for revising, Pulliam's June 5 draft PMP outline, dated June 11, 2013;
- E-mail from Nile Ostenso to Robie Anson, discussing comments provided in EPA's June 11 e-mail, dated June 13, 2013;
- E-mail from Robie Anson to Nile Ostenso, with responses to WDNR's June 13 message, dated June 14, 2013;
- E-mail from Nile Ostenso to Robie Anson with Pulliam's revised PMP outline attached, dated June 17, 2013, and;
- E-mail from Nile Ostenso to Robie Anson with Pulliam's revised PMP outline attached, dated June 27, 2013.

D. Additional information:

- Transmittal letter from Kenneth Johnson to Tinka Hyde, dated June 4, 2013, with background information attached;

- Draft WPDES permit for the Wisconsin Public Service Corp. Pulliam – WPDES permit number WI – 0000965-09-0;
- State of Wisconsin notice of final determination re: WPDES Permit No. WI-0000965-09-0, provided on July 12, 2013;
- Tentative notice of final determination with a brief description of the permitted facility, comments received during the public comment period, and WDNR responses, provided on June 27, 2013;
- Revised State of Wisconsin notice of final determination re: WPDES Permit No. WI-0000965-09-0, provided on July 11, 2013;
- Revised State of Wisconsin notice of final determination re: WPDES Permit No. WI-0000965-09-0, provided on July 12, 2013;
- Final revised State of Wisconsin notice of final determination re: WPDES Permit No. WI-0000965-09-0, provided on July 12, 2013;
- Pulliam annual PMP report, dated January 29, 2010;
- Two e-mail messages from Robie Anson to Nile Ostenso, including additional clarifying remarks on EPA's response to WDNR's June 13 e-mail message, each dated June 14, 2013;
- Comments on the proposed WPDES permit for the Pulliam Generating Station, sent from Leonard Rentmeester to Nile Ostenso and dated March 20, 2013, with attachment;
- Comments of the Sierra Club on draft WPDES permit WI-0000965-09-0, prepared and sent by James Saul to Nile Ostenso on behalf of the Sierra Club, dated March 22, 2013, with attachments;
- E-mail from Patrick Kuefler to Nile Ostenso, including informal comments on the Pulliam permit, dated April 24, 2013, and;
- Summary of Pulliam permit and fact sheet changes, provided by Nile Ostenso and dated June 27, 2013.

E. Description of Action:

Pulliam is a power plant run by WPSC in Green Bay, Wisconsin. The facility takes in water from the Lower Fox River for cooling purposes (it also has an intake in Green Bay that is not currently in use) and also produces a separate, relatively small volume of process wastewater (approximately 2.1 MGD). Process wastewater includes demineralizer waste, boiler blowdown, bottom ash transport water, air heater wash water, and boiler seal water. Process waste is collected in a pond and, after polymer addition and rapid mixing, treated for suspended solids in a Lamella clarifier. Treated process water is discharged through sample point 101 and mixes with water used for cooling prior to discharge to the mouth of the Lower Fox River.

WDNR proposes to grant Pulliam a mercury variance from Wisconsin's water quality criteria of 1.3 ng/L (wildlife) and 1.5 ng/L (human health), to 48 ng/L, as a daily maximum, for the effluent discharge to the mouth of the Lower Fox River. The permit limit equals the 1-day P99 of the available effluent monitoring data generated using EPA method 1631 for mercury. In addition to the requirement that Pulliam meet the permit limit for mercury, the permittee must execute a PMP, as referred to in section 5.2 of the permit, to identify and eliminate sources of mercury in its process water, and submit status reports to WDNR on an annual basis.

F. Basis of Action:

Wisconsin's administrative rules at Wis. Admin. Code § NR 106.145 provide for "alternative mercury effluent limits" based on a determination by WDNR that "requiring all dischargers of mercury to remove mercury using wastewater treatment technology to achieve discharge concentrations necessary to meet water quality standards would result in substantial and widespread adverse social and economic impacts" (NR 106.145(1)(a)). This finding is based on "Assessing the Economic Impacts of the Proposed Ohio EPA Water Rules on the Ohio Economy," prepared in 1997 by the Ohio Environmental Protection Agency, Foster Wheeler Environmental Corporation and DRI/McGraw-Hill to support the multiple discharger variance adopted by the State of Ohio. The primary conclusion of this study was that the necessary treatment technology to remove mercury to the level of the water quality standard is either not available or is prohibitively expensive, and acquiring and installing the equipment would have widespread economic and social impacts.

WDNR evaluated the mercury removal levels achieved by Pulliam from April 2010 through March 2012. Water quality data show that total recoverable mercury levels in the plant's effluent ranged from 1.5 to 39.2 ng/L. Analyzed according to NR 106.05(5)(a), the average discharge concentration is 11 ng/L and the 1-day P99 is 48 ng/L. Therefore, the mercury concentration in effluent from the facility is greater than the level needed to comply with applicable water quality criteria.

Data collected at Pulliam's intake demonstrate that mean ambient mercury concentration in the Lower Fox River (10.3 ng/l) exceeds water quality criteria to protect both wildlife (1.3 ng/l) and human health (1.5 ng/l).

As mentioned above, a condition of the variance requires Pulliam to implement a mercury PMP. Pulliam developed, and WDNR approved, an initial PMP in 2009, under a previous permit. EPA inquired about aspects of this PMP in its March 22, 2013 comment letter. EPA subsequently worked with WDNR and Pulliam to ensure that the PMP was updated to reflect the findings of previous efforts and to enable the permittee to identify and eliminate additional sources of mercury in the facility's process water. An outline of the updated PMP was provided to EPA on June 27, 2013 and, per requirement 5.2 in the draft permit, a full revision is expected from the permittee by September 30, 2013. This PMP will remain in effect over the life of the permit and is discussed in more detail below.

Based on this information, WDNR concluded that:

- The mercury concentration of Pulliam's discharge currently does not enable the facility to comply with effluent limits based upon the 1.3 ng/L criterion for the protection of wildlife or the 1.5 ng/L criterion for the protection of human health;
- Pulliam's treatment processes are achieving mercury removal rates appropriate for such a facility, and;
- The expense of building and operating additional treatment to comply with a 1.3 ng/L water quality-based effluent limit would result in widespread social and economic harm, leading

the facility to seek a variance consistent with s. 283.15, Wis. Stats., Wis. Admin. Code § NR 106.145 and Federal regulations at 40 CFR 131.10(g).

II. Areas Affected and Environmental Impacts

Approval of this variance will not allow mercury discharge in excess of the level currently achievable. The facility was not subject to a mercury limit in its most recent permit and approval of this variance would cap the level at which Pulliam may discharge mercury and require implementation of a PMP, which is designed to identify and eliminate mercury sources and bring effluent mercury levels into compliance with unvaried water quality criteria.

The area affected by this variance is the mouth of the Lower Fox River at Green Bay in Brown County, Wisconsin, into which Pulliam's effluent flows. The average daily flow of the discharge in 2007 was reported to be 367.7 million gallons per day (MGD) (or 568.9 cubic feet per second (cfs)). The 7-day, 10-year low flow of the Lower Fox River is 426.6 MGD, or 660 cfs.

As mentioned above, mean ambient mercury level in the Lower Fox River is 10.3 ng/L.

Since there is no mercury limit in the permit under which the facility currently discharges, any restriction on effluent mercury concentration would be more protective than that which is currently in place. Although the proposed permit enables the facility to discharge mercury up to 48 ng/L, based upon 2 years of effluent monitoring data EPA expects that the facility will discharge effluent with a mercury concentration of approximately 11 ng/L. As the vast majority of the volume discharged (approximately 99.4%) from the facility is once-through condenser cooling water, much of the mercury discharged by the permittee is simply being reintroduced to the Lower Fox River after cycling through the power plant.

A. Aquatic Life:

If approved, the variance will have no effect on exposed aquatic life. The proposed effluent limitation of 48 ng/L, as a daily maximum, is lower than both Wisconsin's acute and chronic criteria to protect aquatic life. Wisconsin's aquatic life acute criterion for mercury (+2) is 830 ng/L and its chronic mercury (+2) criterion is 440 ng/L. Because the discharge concentration of mercury in the effluent will be limited by the discharge permit to 48 ng/L, both the acute and chronic aquatic life criteria will be met in the discharge.

B. Human Health & Wildlife:

The receiving water is not a public drinking supply, though it discharges to Lake Michigan, which is a source of drinking water. Therefore, WDNR has considered the receiving water to be a public drinking water supply. Under these circumstances, human mercury exposure resulting from the approval of the proposed variance would be expected to result from a combination of ingesting water provided by public drinking water suppliers that draw from the receiving water or downstream waters, the consumption of fish caught in the receiving water, and ingestion of water associated with participating in water-related recreational activities.

As mentioned above, the proposed variance would not allow Pulliam to discharge mercury at concentrations higher than the level currently achievable and would require the permittee to implement a PMP with activities designed to reduce mercury in the facility's discharge. This would be an improvement over the status quo in that the permit under which the permittee now discharges does not limit mercury in the discharge. As a result, EPA expects that the approval of this variance will have a positive impact on the effort to reduce mercury introduced to the environment and more strictly control mercury in ambient water, drinking water supplies, and in fish that may be harvested and eaten by anglers or others. Furthermore, Wisconsin's fish consumption advisory program is designed to minimize the risk of mercury exposure in the general public (more information is available at http://www.dhs.wisconsin.gov/eh/fish/). EPA concludes that approval of the proposed variance will not result in added negative impacts to human health.

When ambient mercury levels exceed the 1.3 ng/L wildlife water quality criterion, piscivorous wildlife may experience negative toxicological effects beyond those expected when the criterion is met. Wildlife, however, are currently exposed to mercury levels in excess of 1.3 ng/L and approval of this variance will not allow an increase in the concentration of mercury in the wastewater discharged by the facility. As mentioned above, the proposed variance would not allow Pulliam to discharge mercury at concentrations higher than the level currently achievable and would require the permittee to implement a PMP that includes activities designed to reduce mercury in the facility's discharge. This would improve the status quo in that the permit under which the permittee now discharges does not limit mercury in Pulliam's discharge. Approving the proposed variance will have a positive impact on the effort to reduce mercury introduced to the environment and more strictly control mercury to which wildlife are exposed.

Given the expected benefits of capping mercury concentration in Pulliam's discharge and requiring the facility to implement an updated PMP, the potential economic and social hardship associated with denying Pulliam's variance request, the variance's minimal expected impact on human health and wildlife, and the lack of treatment technologies capable of consistently reducing mercury effluent concentration to Wisconsin's 1.3 ng/L and 1.5 ng/L water quality criteria, approving the proposed variance is consistent with the protection of public health, safety, and welfare.

III. Clean Water Act (CWA) Sections 101(a)(2)/303(c)(2)/118(c)(2)/40, CFR 131 and CFR 132 Review

A. EPA's authority under section 303(c)(2) of the CWA:

Water quality standards requirements of CWA sections 101(a)(2) and 303(c)(2) are implemented through federal regulations contained in 40 CFR 131; water quality standards requirements of CWA section 118, specific to waters of the Great Lakes System, are implemented through federal regulations contained in 40 CFR 132. Federal regulations within 40 CFR 131.21 require EPA to review and approve or disapprove state-adopted water quality standards. In making this determination, EPA must consider the following requirements of 40 CFR 131.5:

- whether state-adopted uses are consistent with CWA requirements;
- whether the state has adopted criteria protective of the designated uses;
- whether the state has followed legal procedures for revising its standards;
- whether state standards are based on appropriate technical and scientific data and analyses; and
- whether the state submission includes certain basic elements as specified in 40 CFR 131.6.

Section 101(a)(2) of the CWA specifies that designated uses "provide for the protection and propagation of fish, shellfish, and wildlife and provide for recreation in and on the water." Section 303(c)(2) of the CWA requires that standards shall protect the public health and shall take into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational, agricultural, industrial, and navigational purposes.

EPA is required to review and approve new and revised water quality standards submitted by states and tribes. Possible EPA actions include:

- **Approval** (where EPA has concluded that approval of certain revisions will have no effect on listed species, or is otherwise not subject to ESA consultation),
- **Approval subject to ESA consultation** (where EPA has concluded that certain revisions may affect listed species (including beneficial effects)),
- **Disapproval** (where EPA has concluded that certain revisions do not meet the requirements of the CWA or federal regulations and guidance), and
- **No EPA action** (where EPA has concluded that certain revisions are not revisions to the state's or tribe's water quality standards and, therefore, do not need to be reviewed under section 303(c) of the CWA.

Consistent with federal regulations at 40 CFR 131.21, new or revised water quality standards do not become effective for CWA purposes until they are approved by EPA.

B. Public participation, comments, and issues raised on WDNR's draft variance determination:

As noted above, comments on Pulliam's draft permit were received from several parties, including the permittee, the Sierra Club, and EPA's NPDES Programs and Water Quality Branches. The only comments pertinent to the proposed mercury variance were submitted by EPA's Water Quality Branch on March 22, 2013.

In the March 22 comments, EPA's Water Quality Branch requested information regarding:

(1) water sources for various processes conducted at the facility;
(2) concentration of mercury in the facility's wastewater influent and effluent, and;
(3) the amount of data collected on mercury concentration in the facility's wastewater influent and effluent.

EPA also requested that, should WDNR decide to grant the permittee's request for a variance, the Department provide the following information to EPA, or structure the permit in such a way that this information would be produced by the permittee over the next permit cycle:

(1) a schematic diagram of the facility, its processes, and all waste streams;
(2) information on the annual mass of mercury introduced to the environment by the facility and any decrease in the mass of mercury emitted by the facility as a result of PMP actions since 2009;
(3) cost and mercury reduction calculations associated with each of the mercury reduction actions contemplated in Pulliam's January 2010 annual PMP report;
(4) an explanation of why the permittee did not switch to low-mercury sulfuric acid during the last permit cycle, and;
(5) a discussion of the specific actions that the permittee plans to conduct under the proposed permit and a timeline for executing the work.

Finally, EPA requested that WDNR include explicit requirements in the new permit that the permittee conduct in-plant monitoring to be used in a mass-balance analysis of mercury sources at the facility and a mercury mass-balance analysis of mercury introduced to the environment through the operation of the facility.

On April 12, 2013, Pulliam provided WDNR with information related to questions posed in EPA's March 22, 2013 comment letter and, on April 15, 2013, WDNR provided Pulliam's responses for EPA review. Included in this document was a response to EPA's request for "an explanation of the specific mercury reduction activities that the permittee will conduct within the next five-year permit cycle, including a relative timeline for carrying out the work." The response stated:

> The proposed permit contains a compliance schedule relative to the mercury PMP. As part of the compliance schedule in the proposed permit, WPSC is required to propose an updated PMP that includes elements such as source identification, material substitution with low mercury alternatives, alternate processes, and influent wastewater monitoring to determine potential sources of mercury contributing to the discharge. Submittal of the updated PMP is due within 3 months of the effective date of the permit. The Department will review and notify the permittee of acceptance or provide additional comments on the proposed PMP and will then address timing of compliance activities. The results of investigation and/or activities related to the PMP will be provided in the annual status report.

In an April 30, 2013 response to WDNR, EPA clarified that the Agency "must approve variance applicants' PMPs to provide a legal basis for incorporating PMP actions in National Pollutant Discharge Elimination System permits." EPA asked that WDNR provide Pulliam's updated PMP in the final variance package to be sent for EPA review. The response noted:

> EPA needs to be certain that the permittee will reduce the variance-associated pollutant load to the maximum degree possible during the variance term (short of encountering substantial and widespread economic and social impact), thus ensuring that the receiving

water's highest attainable use is protected. The PMP identifies the specific actions that a permittee will take to achieve the receiving water's highest attainable use.

EPA noted the mass-balance study proposed as an element of the PMP and requested that the permittee provide information on location and frequency of planned sampling, analyses planned for identifying mercury sources, methods that might be used to address sources once they are identified, and a schedule outlining when during the permit term proposed PMP actions will occur. EPA also requested that Pulliam provide methods for analyzing the PMP's success in reducing mercury in the facility's discharge.

On May 9, 2013, WDNR, Pulliam, and EPA discussed whether the permittee might be allowed to provide an outline of the full revised PMP that the new permit requires to be submitted to WDNR by September 30, 2013. All parties agreed that if the PMP outline provided a technically appropriate plan to undertake a mass-balance investigation of mercury at the facility, identify sources and take all feasible actions to reduce mercury in the permittee's discharge, then providing an outline of a plan to be explained in more detail prior to September 30 would be acceptable.

On May 23, 2013, Pulliam submitted a draft PMP outline for WDNR and EPA review and, on May 29, 2013, EPA provided comments, suggestions, and recommendations. EPA input included the following:

(1) EPA requested that Pulliam clarify whether it would quantify the concentration of mercury in the City of Green Bay water used in plant processes;
(2) EPA noted that the Agency's expectation is that, during the course of the variance, Pulliam will take all feasible steps to reduce the concentration of mercury in its effluent that is attributable to actions by the facility, unless implementing a particular control is expected to itself be unattainable for one of the reasons in 131.10(g) and/or control measures at certain points in the process have no discernible impact on either concentration or load due to treatment steps taken downstream;
(3) EPA noted that the number of waste stream samples needed should be based upon the data necessary to support the PMP work and may depend upon the variability of the mercury concentration in sampled water (boilers, coal handling, demineralizer, Fox River);
(4) EPA noted that the concentration of mercury in each waste stream should be compared to that in the source water for that process;
(5) EPA noted that, when comparing pre-treatment wastewater to post-treatment wastewater, a larger number of samples would enable the facility to make stronger conclusions as to the effectiveness of its treatment system;
(6) EPA requested that Pulliam clarify how re-routing plant storm drains to a coal pile runoff storage basin might reduce mercury levels in the plant's discharge;
(7) EPA inquired as to whether Pulliam had been able to identify a source of sulfuric acid with a mercury concentration of 0.1 mg/L;
(8) EPA noted that the PMP outline suggested that Pulliam would consider switching from a sodium hydroxide formula with a maximum mercury level of 0.5 mg/L to a product with a maximum mercury level of 0.002 mg/L and that historic annual PMP reports stated that

this has already been done. EPA inquired as to the reason that Pulliam included the action among the potential ways in which to further reduce mercury in plant effluent;

(9) EPA noted that past annual PMP reports have suggested that additional process chemicals used at the facility may be mercury sources. EPA suggested that, if the process waters at Pulliam are shown to be net sources of mercury, it may make sense for the operators to take a closer look at each chemical used and to switch to higher-grade (lower mercury) chemistry if it is possible;

(10) EPA noted that the PMP outline did not clearly articulate for how long the permittee would collect quarterly water samples at the boilers, coal handling, demineralizer, and cooling water waste streams and requested that the permittee clarify the plan for sampling these locations;

(11) EPA noted that the PMP outline did not clearly articulate when the decision would be made as to whether a specific waste stream is "determined to be contributing mercury to the facility." EPA requested that Pulliam clarify the number of samples necessary to make this decision, and;

(12) EPA inquired as to whether it would be possible for Pulliam to account for approximate residence time when sampling wastewater entering the treatment facility and wastewater exiting the facility via sampling point 101 and stated that the most accurate portrayal of the on-site wastewater treatment facility's mercury removal effectiveness would be gained by accounting for residence time and sampling accordingly.

On June 5, 2013, WDNR forwarded to EPA Pulliam's responses to EPA's May 29 comments as well as a revised draft of the PMP outline. In its response, Pulliam noted the following:

(1) Pulliam will sample City of Green Bay water for mercury content;

(2) the PMP outline was modified to reflect EPA's comments with respect to taking all feasible steps to reduce mercury in the facility's discharge unless a control measure will have no discernible impact upon effluent quality due to downstream pollutant reduction steps;

(3) that WPSC agrees that the number of waste stream samples taken should be based upon the data necessary to support PMP work and may depend upon the variability of the mercury concentration in sampled water;

(4) that WPSC will evaluate the mercury concentration of the pre-demineralizer rinse water (potable water purchased from the City of Green Bay) against the post-demineralizer rinse water;

(5) that WPSC will be collecting influent mercury samples to the wastewater treatment facility (prior to Lamella clarifiers) on a quarterly basis in conjunction with quarterly mercury samples from Outfall 101 and that this will provide a sufficiently large number of data points to evaluate the effectiveness of the treatment system and effectively characterize the discharge from Outfall 101 over the permit term;

(6) that there is a storm drain in the vicinity of the coal storage area that has the potential to contain coal pile runoff and that collected storm water is currently directed to the wastewater treatment facility. WPSC further clarified that they will investigate re-routing this specific storm drain by sending the collected water directly to the coal pile runoff storage basin and that water in this basin can be controlled by either impounding in the basin until it is directed to the wastewater treatment facility or by using the water for coal

pile dust control. Pulliam is investigating this potential design change as part of the effort to limit and/or eliminate coal pile runoff water, a potential mercury source, from entering the wastewater treatment facility;

(7) that WPSC identified a supplier that will supply sulfuric acid with a mercury level of 0.1 mg/L;

(8) that, during the current permit term, WPSC reduced the specification for the maximum mercury content in sodium hydroxide from 0.5 ppm to 0.002 ppm on a limited term basis and that, during discussions with their supplier, the supplier agreed to continue providing a product with a maximum mercury specification of 0.002 ppm;

(9) that WPSC has already completed the review of a number of process chemicals used at the facility and that, in the future, should a particular wastewater streams be determined to be a source of mercury, MSDS information for the chemical will be reviewed;

(10) that sampling frequency for boilers, coal handling, demineralizer, and cooling water waste streams will be quarterly for the next five years (or until the permit is renewed) unless or until a waste stream meets one of the criteria for reducing the sampling frequency;

(11) that WPSC has agreed to sample the main sources of water to the wastewater treatment facility quarterly during the next five years (or until the permit is renewed) unless or until a waste stream meets one of the criteria for reducing the sampling frequency and that, if the sampling frequency is being reduced based on the criteria, WPSC will document the justification and make it available for WDNR review, and;

(12) that WPSC does not believe there is value in using residence time to evaluate the effectiveness of the wastewater treatment facility since the Pulliam facility has limited wastewater storage.

On June 11, 2013, EPA provided feedback on Pulliam's revised PMP outline. Feedback included the following points:

(1) EPA requested clarification that Pulliam would sample City of Green Bay water in its raw state, prior to any treatment;

(2) EPA requested that Pulliam indicate that "all feasible steps" would be taken to improve effluent water quality with respect to mercury concentration;

(3) EPA suggested that Pulliam remove a reference to a criterion by which the permittee would evaluate whether action to control mercury levels would be appropriate – namely, whether the source of mercury is the water supply or the power plant itself – because edited language obviated the criterion;

(4) EPA suggested that Pulliam edit language to clarify that mercury in process wastewater streams will be compared to the mercury in the water source for that specific process, and;

(5) EPA requested that the permittee clarify the criteria to be used in evaluating whether a specific waste stream has contributed a consistent concentration of mercury to the plant's wastewater treatment facility.

On June 13, 2013, WDNR provided EPA with a summary of Pulliam's responses to the feedback that EPA provided on June 11. WDNR noted:

(1) that Pulliam agreed that clarifying the fact that they would sample raw City of Green Bay water was important;
(2) that the phrase "all feasible steps" might imply that Pulliam will take actions beyond those contemplated when developing the draft PMP outline. WDNR suggested language meant to clarify expectations of the permittee's PMP;
(3) that, although the permittee might be reluctant to do so, WDNR believed that Pulliam would be willing to remove reference to whether the source of mercury is the water supply or the power plant itself as a justification for determining whether to undertake mercury reduction actions;
(4) that the phrase "concentration or load" unnecessarily complicates the PMP outline, and;
(5) that it is important for the PMP outline to state that appropriate scientific and statistical methods will be used when determining whether a specific waste stream has contributed a consistent concentration of mercury.

On June 14, EPA provided the following responses to WDNR:

(1) The term 'all feasible steps' is simply a way of saying that the permittee must ensure that the highest attainable use is achieved in the receiving water during the permit term. Protection of the receiving water's highest attainable use is required when a variance is granted and is non-negotiable.

Our understanding of the PMP is as follows: The permittee will monitor within the Pulliam facility's waste stream to determine where mercury may be originating. When monitoring identifies potential sources, we expect that the permittee will develop options for addressing those sources. At some point, the permittee will have to evaluate the viability of the options they have identified for reducing the mercury load to their waste stream. They may find that it does not make sense to pursue certain reduction options because: (a) they will have no discernible impact on the effluent quality at Outfall 101 (i.e. upstream controls would not augment mercury reduction capabilities at the facility's wastewater treatment plant); (b) it is unlikely that the control option would successfully reduce mercury, and/or; (c) implementing a particular control option is itself unattainable for one of the reasons outlined at 40 CFR 131.10(g). On the other hand, the permittee may find that certain mercury reduction options are <u>feasible</u> and <u>would have an impact on the effluent quality at Outfall 101</u>. We expect that the permittee will implement feasible mercury reduction options that will improve effluent quality at Outfall 101. They may choose which options to implement first, based on a prioritization scheme that they define. I believe that the permittee shares this view of the PMP. If not, we should arrange a conference call to discuss.

Please consider the following edit of your above suggestion. It eliminates language associated with the original source of the mercury because that is not an appropriate criterion by which to evaluate whether to implement a mercury reduction action (more on that below). I've also included the considerations around feasibility directly in the paragraph, excepting (e), as discussed below. I think that this language clearly articulates our expectations. Again, if our expectations differ from the permittee's, it may make sense to have a second phone call.

"If a plant process is identified to be adding mercury to the facility's wastewater ~~treatment system at levels above the background levels of the original source water supply~~, then the facility will evaluate the impact of possible mercury reduction actions based on expected water quality improvements at Outfall 101. After reviewing (1) the likelihood of achieving expected results; (2) ease of implementation; (3) whether the control measures in the process will have a discernible impact on effluent quality at Outfall 101, and; (4) whether implementing a particular control is expected to itself be unattainable for one of the reasons in 40 CFR 131.10(g), the permittee will take all feasible steps to reduce the mercury in the facility's effluent. ~~that is attributable to that plant process. This feasibility evaluation will take into consideration the following…~~"

(2) Dropping [the reference to whether the source of mercury is the water supply or the power plant itself as a justification for determining whether to undertake mercury reduction actions] is consistent with EPA's position that the permittee must take all feasible steps to reduce mercury in the plant's effluent. We can discuss this in more detail if Pulliam is not amenable to dropping the language.

(3) Pulliam included the term "concentration or load" at bullet point (c) on page 1 in their June 5 revision of the PMP. Is there a specific reason that this term is now a concern?

The reason for [EPA's] June 11 comment is that the June 5 revision of the PMP does not clearly articulate that the level of mercury in each individual waste stream will be compared to the level of mercury in the water source feeding that waste stream (i.e. Green Bay city water "feeds" the demineralizer waste stream). As the June 5 PMP was written, a reader might infer that the level of mercury in each waste stream would be compared to the ambient concentration of mercury in the Fox River. Such a comparison would not enable the permittee to determine where mercury is introduced to the waste stream and would compromise the effectiveness of the PMP.

(4) There seem to be two cases in which the permittee might propose to discontinue monitoring in a specific waste stream: (1) where monitoring data suggest consistently low mercury levels that the permittee will not act upon (because it would not be feasible or beneficial to implement control actions) and; (2) where monitoring data suggest consistently higher mercury levels where the permittee will take action and does not need additional data to support decision-making. In the former case, annual monitoring to reconfirm low mercury levels would be appropriate. In the latter case, we expect that the permittee would implement mercury control actions and begin monitoring again once control actions are finished. Do you agree? Would you and the permittee be amenable to including language in the PMP outline that requires the permittee to notify WDNR of any decision to discontinue monitoring and await a response before actually ceasing monitoring activity?

On June 17, 2013, WDNR forwarded a revised version of Pulliam's PMP outline. This revision did not include the term "all feasible steps" and retained language that EPA had previously suggested editing. EPA suggested a second discussion between Pulliam, WDNR, and EPA and, on June 26, 2013, Pulliam, WDNR, and EPA discussed PMP outline revisions necessary for EPA approval of the proposed variance.

During the June 26 discussion, Pulliam agreed to "take all feasible steps to reduce the mercury in the facility's effluent." Criteria to assess feasibility of mercury reduction steps include:

(1) the likelihood of achieving expected results;
(2) ease of implementation;
(3) whether a control measures will have a discernible impact (either on concentration or load) due to the treatment steps taken downstream (i.e. at the wastewater treatment facility), and;
(4) whether implementing a particular control is expected to itself be unattainable for one of the reasons in 40CFR 131.10(g).

EPA expects that difficulty of implementation will not necessarily preclude Pulliam from taking a specific mercury reduction step, but would primarily be used to prioritize mercury reduction activities.

During the June 26 discussion, the parties also discussed whether it would be appropriate for the permittee to await confirmation from WDNR prior to discontinuing monitoring of a specific waste stream for one of the four reasons on page two of the PMP outline. Pulliam noted that language that allows regulatory agencies a specific amount of time to object to a proposed course of action before the proposal is assumed acceptable is included in section 402(d) of the Clean Water Act and argued that the language in the PMP outline was consistent with this precedent. EPA and WDNR agreed.

Therefore, on June 26, 2013, Pulliam submitted a final PMP outline for WDNR review and approval. On June 27, 2013, WDNR submitted this outline for EPA review in support of Pulliam's proposed mercury variance. The outline includes plans to examine all waste streams that contribute to the facility's wastewater treatment plant and implement all feasible strategies that will reduce the mercury discharged in the wastewater treatment plant effluent. More specifically, the permittee will sample boiler water, coal handling water, and demineralizer water, on a quarterly basis, to identify waste streams that are high in mercury. The permittee will also sample non-contact cooling water drawn from the Fox River (or Green Bay), influent to the wastewater treatment plant, and wastewater treatment facility effluent, all on a quarterly basis. Wastewater treatment facility influent and effluent will be sampled over the life of the permit. Other monitoring efforts, described above, will continue unless or until:

(1) an individual source no longer contributes water to the wastewater treatment facility;
(2) after one year, an individual source is contributing mercury to the wastewater treatment facility at a concentration that is less than Wisconsin's 1.3 ng/L wildlife water quality criterion;
(3) after a minimum of two years, a wastewater stream has contributed a consistent concentration of mercury to the wastewater treatment facility, or;
(4) after a minimum of two years, mercury concentration of the effluent discharged from the wastewater treatment facility consistently below the 1.3 ng/L wildlife criterion.

If, per one of the reasons listed above, the permittee proposes to modify the monitoring schedule, the permittee will alert WDNR in writing. WDNR may then choose to allow or disallow the proposed modification. The Department's silence will be construed as approval.

Mercury reduction actions will be prioritized based upon the likelihood of achieving expected results, ease of implementation, whether the control measures in the process will have a discernible impact (either on concentration or load), and whether implementing a particular control is expected to itself be unattainable for one of the reasons in 40CFR 131.10(g).

Some of the language included in the final PMP outline is language that EPA previously suggested editing. EPA explains why it now believes this language to be acceptable below:

(1) In the final PMP outline, Pulliam states: "If a plant process is identified to be adding mercury to the facility's wastewater treatment system at levels above the background levels of the original source water supply, then the facility will evaluate the impact of possible mercury reduction actions based on expected water quality improvements at Outfall 101."

EPA previously suggested that Pulliam modify the language of the above sentence to ensure that the permittee would evaluate options for removing all mercury introduced to the receiving water as a result of the operation of the facility. (This would include considering options for eliminating mercury introduced to the receiving water as a result of mercury entering the facility through source waters used to feed internal processes such as demineralization.) EPA suggested this change because, to ensure that the receiving water's highest attainable use is achieved, the Agency expects the permittee to take all feasible actions to reduce mercury in the facility's discharge.

Upon further consideration, EPA believes that the language included in Pulliam's PMP outline will not appreciably impact the effort to achieve the highest attainable use in the receiving water. Under the current PMP, Pulliam will undertake an effort to reduce mercury discharged as a result of its internal processes. Pulliam's work will focus on identifying and addressing mercury sources through in-plant process water monitoring and substituting lower-mercury process chemicals, where available, for those found to contribute mercury to the facility's wastewater. EPA believes that this is an appropriate approach to reducing mercury discharge.

In addition, Pulliam will monitor raw water provided by the Green Bay Water Utility, which feeds internal processes including demineralization, to determine whether process water itself may be a mercury source. Given that 99% of the water provided by the Green Bay Water Utility is drawn from Lake Michigan (1% is groundwater), EPA believes that the mercury level in water provided by the Utility will be at or below ambient Lake Michigan levels. Based upon open water and tributary monitoring data available in Results of the Lake Michigan Mass Balance Study: Mercury Data Report, [1] EPA expects that mercury will be present in the process water supply at low levels, similar to those for which WDNR has found treatment technologies to be

[1] Results of the Lake Michigan Mass Balance Study: Mercury Data Report is available at http://www.epa.gov/greatlakes/lmmb/results/mercury/lmmbhg.pdf.

prohibitively expensive, to the point that requiring dischargers to treat such concentrations of mercury to meet the 1.3 ng/L wildlife criterion would cause substantial and widespread economic and social impact.

Therefore, EPA believes that during the upcoming permit period it is appropriate for Pulliam to reduce mercury in the facility's waste stream through waste stream monitoring and identification and substitution of process chemicals, and to monitor mercury in water supplied by the Green Bay Water Utility. Depending upon the mercury reductions realized through process chemical substitution, and the data generated through monitoring of the Green Bay Water Utility supply, it may be appropriate for Pulliam to consider ways in which to further reduce mercury in process wastewater. One method for reducing mercury in process water could be identifying an alternative, lower-mercury source of process water. Should Pulliam choose to apply for subsequent variances from the 1.3 ng/L mercury water quality criterion, EPA will consider Pulliam's mercury reduction efforts to date and any feasible additional alternatives for achieving further reductions.

In addition, in its comments to WDNR and Pulliam, EPA requested certain information that was not provided. These requests are discussed below:

(1) The Agency requested information on the annual mass of mercury introduced to the environment by the facility.

(2) The Agency requested information on any decrease in the mass of mercury emitted by the facility as a result of PMP actions since 2009.

At section 5.2 of the proposed permit, WDNR has included a condition that requires Pulliam to conduct a quantified mass-balance of sources of mercury that could contribute mercury to the facility's wastewater discharge as well as a quantified mass-balance of mercury introduced to the environment through operation of the facility. EPA expects this condition to generate information on both the amount of mercury discharged to the environment through the operation of the facility and possible sources. These data will better enable Pulliam to reduce the amount of mercury discharged to the receiving water, which is the ultimate goal of the PMP.

(3) EPA requested information on methods that might be used to address sources once identified.

(4) EPA requested that Pulliam provide the methods used for analyzing the PMP's success in reducing mercury in the facility's discharge.

After discussions with WDNR and Pulliam, EPA believes that the permittee has provided sufficient information on the steps to be taken in implementing a PMP to reduce mercury in the facility's discharge for the Agency to approve the proposed variance. Although the permittee has not listed all methods that will be used to address mercury sources once they are identified, it is clear that a central component of the strategy is replacement of process chemicals with low-mercury alternatives. Although the permittee has not included explicit metrics to identify the PMP's success in reducing mercury in the facility's discharge, the monitoring data collected by

the permittee will provide information for determining whether mercury concentration and loads are being reduced through the implementation of the PMP. Finally, EPA believes that it is appropriate to allow the permittee flexibility to implement the PMP as data are collected and mercury reduction steps are taken.

C. EPA's Review of WDNR's final mercury variance determination:

1. Review of submittal for completeness:

Regulatory Requirement:	**Pulliam Variance Submittal:**
Use designations consistent with the provisions of section 101(a)(2) and 303(c)(2) of the Act **(40 CFR 131.6(a))**	Approval of the proposed variance will ensure protection of uses at the levels that have been realized thus far.
Methods used and analyses conducted to support WQS revisions **(40 CFR 131.6(b))**	Documents submitted by WDNR in support of this variance include items listed above under C and D in Section I.
Water quality criteria sufficient to protect the designated uses "warm-water sport fish community, non-public water supply" **(40 CFR 131.6(c))**	Under the conditions of the variance, the applicable water quality criterion is the mercury effluent concentration that is currently achievable, 48 ng/L. The toxicity criteria to protect aquatic life are 830 ng/L (acute) and 440 ng/L (chronic). The human criterion for non-public water supply with an associated warm water sport fish community is 1.5 ng/L.
An antidegradation policy consistent with §131.12 **(40 CFR 131.6(d))**	This variance will not affect Wisconsin's existing antidegradation policy.
Certification by the State Attorney General or other appropriate legal authority within the State that the WQS were duly adopted pursuant to State law. **(40 CFR 131.6(e))**	WDNR's Chief Legal Counsel certified the variance in a letter from Timothy A. Andryk to Tinka Hyde, dated June 4, 2013.
General information which will aid the Agency in determining the adequacy of the scientific basis of the standards which do not include uses specified in section 101(a)(2) of the Act, as well as information on general policies of State standards to which their application and implementation apply. **(40 CFR 131.6(f))**	The information submitted by WDNR and Pulliam is described above. The permittee operates a facility with an average discharge of 367.7 MGD. The treated effluent from the facility contains an average of 11 ng/L of mercury. As a condition of the variance, the permittee is required to implement its PMP to reduce mercury in the facility's discharge.
Variance is not applicable to new/recommencing discharges **(40 CFR 132, Appendix F, Procedure 2.A.1)**.	Pulliam is an existing facility and the mercury related to this variance request is not a new discharge.
Variance does not jeopardize federally-listed threatened/endangered species **(40 CFR 132, Appendix F, Procedure 2.A.2)**.	As noted below, this action will have no effect upon the dwarf lake iris.

Regulatory Requirement:	**Pulliam Variance Submittal:**
WQS cannot be attained by implementing treatment requirements of sections 301 and 306 of the CWA **(40 CFR 132, Appendix F, Procedure 2.A.3)**.	This facility is meeting technology-based limits. There are no applicable, cost-effective, and reasonable best management practices or other nonpoint source controls and the source of mercury in the facility's discharge is not agricultural runoff.
Duration of the variance is five years or the life of the permit, whichever is less **(40 CFR 132, Appendix F, Procedure 2.B)**.	As proposed, the variance duration is the life of the permit (5 years).
Variance is based on one of the six conditions **(40 CFR 132, Appendix F, Procedure 2.C.)**.	The variance is based upon condition (f) – controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act would result in substantial and widespread economic and social impact.
Variance conforms with State antidegradation policy **(40 CFR 132, Appendix F, Procedure 2.C.2.a.)**.	Granting this variance does not remove an existing use and does not authorize a new or increased discharge.
Any increased risk to human health or the environment is consistent with the protection of public health, safety and welfare **(40 CFR 132, Appendix F, Procedure 2.C.2.b.)**.	Pulliam collected samples from the Lower Fox River indicating that average ambient mercury levels is 10.3 ng/L. This ambient concentration exceeds both the 1.3 ng/L criterion established to prevent bioaccumulation of mercury in fish and the 1.5 ng/L human health threshold. Given the discharger's historic effluent mercury levels (average mercury concentration in the facility's effluent is 11 ng/L), the proposed permit is expected to minimally impact ambient mercury levels in the receiving waterbody. Additionally, treatment technology necessary to remove mercury to the level of the WQS is either not available or prohibitively expensive and purchase and installation of the equipment would have a widespread economic and social impact. A condition of the variance calls for Pulliam to implement a PMP requiring the permittee to take all feasible steps to reduce mercury in the facility's effluent. Implementation of strategies outlined in the PMP is expected to improve the quality of the plant effluent. Wisconsin fish consumption advisories are designed to reduce the likelihood of negative impacts associated with consumption of mercury-contaminated fish. Granting a variance in this situation is unlikely to result in any significantly increased risk to human health or the environment, and is consistent with the protection of public health, safety, and welfare.

Regulatory Requirement:	Pulliam Variance Submittal:
Submittal of a variance application by the permittee demonstrating that attaining WQS is not feasible and showing compliance with the requirements of section C.2. of procedure 2 **(40 CFR 132, Appendix F, Procedure 2.D.)**.	Pulliam's variance application was submitted to WDNR on December 17, 2010. Additional treatment to remove mercury would have widespread social and economic impact.
Submittal to EPA, including permittee's application, public comments and hearing records (if held), final decision, NPDES permit with conditions consistent with 2.F. **(40 CFR 132, Appendix F, Procedure 2.I.)**.	WDNR provided all required information, including public comments, final decision, and the alternative mercury effluent limitation, that represents the 99th percentile level currently achievable by the permittee, and which is no less stringent than that achieved under the previous permit. WDNR publicly noticed the permit and variance on February 20, 2013.

2. EPA action on the final variance determination submitted by WDNR:

The information provided by WDNR meets the substantive requirements for a water quality standard submittal of 40 CFR 131.6. In addition, the information provided by WDNR indicates that the Wisconsin mercury criteria for the protection of wildlife and human health are not currently attained and may not be immediately attainable in the Lower Fox River, consistent with 40 CFR 131.10(g). This is not meant to imply that the aforementioned uses are not occurring on the Lower Fox River; wildlife may use the waterbody for forage and drinking water, and people may fish. However, in doing so, wildlife and humans may be exposed to marginally higher levels of mercury than would occur if the criteria associated with these uses were attained. It was determined that not allowing a variance would result in substantial and widespread social and economic impact. As Pulliam implements the PMP, reductions in the amount of mercury discharged are expected to occur.

Therefore, WDNR's final mercury variance determination is consistent with the CWA and federal regulations and guidance. EPA approves the mercury variance for Pulliam.

IV. Endangered Species Act (ESA) Section 7 Evaluation

Consistent with section 7 of the ESA and federal regulations at 50 CFR Part 402, EPA is required to consult with the U.S. Fish and Wildlife Service (FWS) on any action taken by EPA that may affect federally-listed threatened and endangered species or their designated critical habitat. Actions are considered to have the potential to affect listed species if listed species are present in the action area.

According to the FWS section 7 consultation assistance webpage (accessed July 11, 2013), the dwarf lake iris *(Iris lacustris)* is present in Brown County, Wisconsin. There is no critical habitat in Brown County.

Since the dwarf lake iris is a terrestrial organism, it will not be impacted by approval of the proposed mercury variance. EPA concludes that approval of the proposed variance will have no effect on the dwarf lake iris.

V. Tribal Consultation Requirements

On May 4, 2011, EPA issued the "EPA Policy on Consultation and Coordination with Indian Tribes" to address Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments." The EPA Tribal Consultation Policy states that "EPA's policy is to consult on a government-to-government basis with federally recognized tribes when EPA actions and decisions may affect tribal interests."

EPA mapped the path of the Lower Fox River downstream of the discharge and found that the River does not cross or run adjacent to any reservation or ceded territory. Therefore, EPA has concluded that it is not necessary to offer consultation to Indian tribes.